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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,339	07/14/2006	Yasuyuki Arai	0756-7767	2793

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EXAMINER	
INGHAM, JOHN C	
ART UNIT	PAPER NUMBER
2814	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,339	ARAI ET AL.	
	Examiner	Art Unit	
	JOHN C. INGHAM	2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/30/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (particularly the overlooked citations) submitted on 30 January 2009 was considered by the examiner.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims **1-11, 14 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizumi (US 6,459,588), Reddy (US 6,509,217) and Atherton (US 6,888,509).

6. Regarding claims **1-3, 8 and 10**, Morizumi discloses in Fig 8 a semiconductor device comprising: a support base (41) interposed between a pair of adhesives (41A); an integrated circuit (42) and an antenna (43) over the pair of first adhesives; a wiring (48) electrically connecting the integrated circuit and the antenna; a second adhesive (23) over the wiring; and a cover material (46B) over the second adhesive, wherein the antenna comprises a plurality of wirings connected in series (Fig 4, connected to chip at points 13A and 13C).

7. Morizumi does not specify wherein the integrated circuit is a thin film integrated circuit comprising a plurality of semiconductor elements. Reddy teaches that an integrated circuit for an RFID tag incorporates a plurality of thin film transistors in order to lower manufacturing costs (col 3 ln 10-20). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Reddy in order to lower costs.

8. Morizumi does not specify wherein a separating layer is arranged over the pair of first adhesives, wherein the wiring (or portion of the antenna as in claims 8, 10) passes through the separating layer. Atherton teaches that a separating layer (Fig 6A item 105) should be provided between an integrated circuit (402) and an antenna (102), wherein wiring passes through the separating layer and connects the circuit and antenna, so that tampering the device may separate the antenna from the circuit (Fig 2B) and indicate if

tampering has occurred (col 4 ln 4-12). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Atherton in order to indicate tampering had occurred to the device.

9. Regarding the language (claim 2 and claim 10), "sequentially laminated" describes a product by process limitation. See MPEP 2113. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the device of Morizumi, Reddy and Atherton includes a sequence of thin film integrated circuit, separating layer and antenna.

10. Regarding claim **4**, Morizumi, Atherton and Reddy disclose the device of claim 1. The claim language "wherein the antenna is formed by one of a printing method and a droplet discharging method" describes a product by process limitation. See MPEP 2113. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

11. Regarding claim **5**, Reddy teaches wherein the plurality of semiconductor elements comprise thin film transistors, wherein each of the thin film transistors comprises a semiconductor film (Fig 1) and gate electrode (28) with a gate insulating film (26) interposed therebetween.

12. Regarding claim **6**, Atherton discloses the device of claim 5, wherein the antenna is aluminum (col 5 ln 20) and Reddy teaches that thin film transistor gates also comprise aluminum (col 13 ln 42). Therefore both may obviously be formed by patterning a same conductive film (aluminum).

13. Regarding claims **7, 9 and 11**, Morizumi, Atherton and Reddy disclose the device of claims 1, 8 and 10. The claim language "wherein the thin film integrated circuit and the antenna are formed over a substrate and then peeled off by removing the substrate and stuck to the support base using one of the pair of first adhesives" describes a product by process limitation. See MPEP 2113. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). The resulting structure from the claimed process is an integrated circuit and antenna stuck to a support base by an adhesive (shown by Morizumi in Fig 8, circuit stuck to support base 41 by adhesive 41A).

14. Regarding claim **14**, Morizumi discloses the device of claim 1, wherein the support base plastic (col 3 ln 50-52).

15. Regarding claim **15**, Atherton teaches in Fig 14 the device of claim 1, wherein the semiconductor device (1401) is stuck to a container (1402).

16. Claims **12 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizumi, Atherton and Reddy as applied to claim 1 above, and further in view of Kuwabara (US 2003/0130020).

17. Morizumi, Atherton and Reddy do not specify wherein the separating layer comprises a metal oxide film containing at least one selected from the group consisting of TiN, WN, Mo and W, and wherein the metal oxide film is in a crystalline state. Instead Atherton discloses that the separating layer is some suitable material for adhesion (col 6 ln 13).

18. Kuwabara teaches that a suitable material for a separating layer may comprise a crystalline metal oxide containing tungsten (¶114-116), so that the peeling properties can be adjusted (¶114). It would have been obvious to one of ordinary skill in the art to combine the teachings of Kuwabara and Atherton since a crystalline metal oxide is suitable for use as a separation layer. Art recognized suitability for an intended purpose has been recognized to be motivation to combine. MPEP 2144.07.

Response to Arguments

19. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN C. INGHAM whose telephone number is (571)272-8793. The examiner can normally be reached on M-F, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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